Re: BPL technology

I am an Electrical Engineer, working primarily with government HF radio systems, am a ham radio operator, and have moved from the city to the country with little services available.

The reason I mention all three things is that when considering this technology and the need to comment it is almost a double edged sword for me personally. I can understand both sides of the debate, but in the end I ask that the FCC be careful in the deployment of any BPL technology and this is why:

I moved to the country in part due to severe power line interference to my amateur radio station, and broadcast reception from very poor quality lines from Alliant Energy in Cedar Rapids, IA.

(This was documented by Mr. Riley Hollingsworth, and limited FCC action was taken to NO avail.)

This makes me wonder if: The powerlines in the city which I work, Cedar Rapids, IA are so poor as they are illegally radiating already, what additional damage to the HF spectrum will BPL technology do? There is evidence in other countries that the interference from such systems is so severe that the other countries' governing bodies have shut such systems down (in Japan).

I've seen German amateur radio videos documenting interference to HF bands that have clearly (S-9 on ICOM 706 radios) unacceptable interference.

And the assumption there is that the power lines themselves are in good shape since these are "test" systems!

On the other hand, In my new rural setting, I'm presently in the situation of not having a working landline telephone for over a week, apparently because there are no working pairs back to the central office from my location, and the phone company does not want to invest in maitaining their lines (Qwest). (Quote from Qwest technician: "There is not enough of a revenue stream out here, so the company does not want to invest in fixing the rotting pairs.")

So I presently have NO internet access from home at all. Or a working landline phone, and no alternative to the lousy quality telephone monopoly. I do understand that BPL is a possibility for breaking the monopoly in my rural area.

I would definitately benefit from broadband at my location. But at the cost of losing the HF spectrum?

I agree with the comments of the powerline community that there is a need for more universal broadband access, particularily out in the rural areas like where I currently reside. However, it appears that the suggested system of BPL might have unacceptable interference potential for HF to low VHF. It would likely be worse on power systems that have poor maintenance like Alliant Energy's system in Cedar Rapids.

As an engineer who both makes a living with HF and occasionally operates HF on Amateur Radio, I'm concerned if this isn't getting pushed through without an adequate amount of research and technical information. Actually this is what this appears to be to myself and many other observers.

There is only one ionosphere, and one set of frequencies that can and will propagate worldwide. The BPL system currently appears like it will interfere with this natural resource in an unacceptable fashion.

My understanding of the rules is that the power companies are free to apply systems like these currently if they comply to Part 15 rules. If this were the case with the BPL system in question, there would be no need for the Docket, or comments on either side. (in fact my current system with the Maquoketa Valley REC in Iowa uses 150KHz signalling already for "peak load shutoffs". I have such a system in my house.)

The power companies/broadband interests know there will be interference potential, otherwise the systems would have already been deployed.

There is at least the implied intereference potential that the systems cannot meet current Part 15 regulations. So any comments by the power companies that "no interference potential exists" is obviously, by reasoning, false.

In this time of terrorism, and world unrest, HF could be the only reliable long distance form of communications in extreme disasters. Noise at HF could propagate from many miles away and hamper communications at an emergency site.

I think the FCC should be careful to consider adding intereference to a natural resource like HF in case it is needed for emergency needs.

Please understand that I'm not against the concept of BPL, but from my education, experience and research on the subject, I feel that the technology could and should be refined more before it's released throughout the entire country. I'm asking the FCC to please be careful with this.

I also fear the intereference potential to government systems like ALE. In the recent addition of 60 meter frequencies the NTIA was quite concerned about intereference from amateur operators. I personally think that that type of intereference is a minor issue compared with what I have seen of BPL technology will be.

Thank you for reading and considering my comments,

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